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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Paul R. Odgren *et al.*

Art Unit : 1645

Serial No. : 09/933,915

Examiner : Unknown

Filed : August 20, 2001

Title : TRANCE REGULATION OF CHONDROCYTE DIFFERENTIATION

Commissioner for Patents  
Washington, D.C. 20231

INFORMATION DISCLOSURE STATEMENT

Applicants submit the references listed on the attached form PTO-1449, copies of which are enclosed.

This statement is being filed before the receipt of a first Office action on the merits. Please apply any charges or credits to Deposit Account No. 06-1050, referencing Attorney Docket No. 07917-120001.

Respectfully submitted,

Date: February 20, 2002

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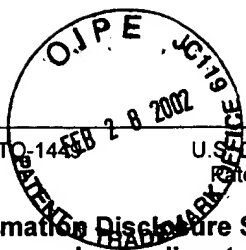
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| Substitute Form PTO-1449<br>(Modified)<br><br><b>Information Disclosure Statement<br/>by Applicant</b><br>(Use several sheets if necessary)<br><br>(37 CFR §1.98(b)) | U.S. Department of Commerce<br>Patent and Trademark Office | Attorney's Docket No.<br><b>07917-120001</b> | Application No.<br><b>09/933,915</b> |
|  | Applicant<br><b>Paul R. Odgren, et al.</b>                 |  |                                      |
|  | Filing Date<br><b>August 20, 2001</b>                      | Group Art Unit<br><b>1645</b>                |                                      |

**U.S. Patent Documents**

| Examiner Initial | Desig. ID | Patent Number | Issue Date | Patentee       | Class | Subclass | Filing Date If Appropriate |
|------------------|-----------|---------------|------------|----------------|-------|----------|----------------------------|
|                  | AA        | 5,767,244     | 06/16/98   | Goeddel et al. |       |          |                            |
|                  | AB        | 4,356,261     | 10/26/82   | Kuettner       |       |          |                            |
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|                  | AD        | 5,723,331     | 03/03/98   | Tubo et al.    |       |          |                            |

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**Foreign Patent Documents or Published Foreign Patent Applications**

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|------------------|-----------|-----------------|------------------|--------------------------|-------|----------|-------------|----|
|                  |           |                 |                  |                          |       |          | Yes         | No |
|                  | AE        |                 |                  |                          |       |          |             |    |

**Other Documents (include Author, Title, Date, and Place of Publication)**

| Examiner Initial | Desig. ID | Document  |
|------------------|-----------|---|
|                  | AF        | Anderson et al., "Inhibition of Human Cytomegalovirus Immediate-Early Gene Expression by an Antisense Oligonucleotide Complementary to Immediate-Early RNA", <i>Antimicrob Agents Chemother</i> , 40:2004-2011, 1996.   |
|                  | AG        | Anderson et al., "A homologue of the TNF receptor and its ligand enhance T-cell growth and dendritic-cell function", <i>Nature</i> , 390:175-179, 1997.   |
|                  | AH        | Boyan et al., "Differential Expression of Phenotype by Resting Zone and Growth Region Costochondral Chondrocytes <i>In Vitro</i> ", <i>Bones</i> , 9:185-194, 1988.   |
|                  | AI        | Cielinski et al., "Dental Abnormalities in the Osteopetrotic Rat Mutation Microphthalmia Blanc", <i>Arch. Oral Biol.</i> , 39:985-990, 1994.  |
|                  | AJ        | Cielinski, M.J. and Marks, S.C., Jr., "Neonatal Reductions in Osteoclast Number and Function Account for the Transient Nature of Osteopetrosis in the Rat Mutation Microphthalmia Blanc ( <i>mib</i> )", <i>Bone</i> 15:707-715, 1994.  |
|                  | AK        | Crooke et al., "Pharmacokinetic Properties of Several Novel Oligonucleotide Analogs in mice", <i>J. Pharmacol. Exp.</i> , 277:923-937, 1996.  |
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|                  | AM        | Kyriakides et al., "Regulation of Angiogenesis and Matrix Remodeling by Localized, Matrix-Mediated Antisense Gene Delivery", <i>Mol. Ther.</i> , 3(6):842-9, 2001.  |
|                  | AN        | Lacey et al., "Osteoprotegerin Ligand Is a Cytokine that Regulates Osteoclast Differentiation and Activation", <i>Cell</i> , 93:165-176, 1998.  |
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|                  | AP        | Odgren et al., "The <i>Toothless</i> Osteopetrotic Rat Has a Normal Vitamin D-Binding Protein-Macrophage Activating Factor (DBP-MAF) Cascade and Chondrodysplasia Resistant to Treatments With Colony Stimulating Factor-1 (CSF-1) and/or DBP-MAF", <i>Bone</i> , 25:175-181, 1999. |
|                  | AQ        | Rani et al., "Restoration of Normal Bone Development by Human Homologue of Collagen Type II (COL2A1) Gene in Col2a1 Null Mice", <i>Dev. Dyn.</i> , 214:26-33, 1999.   |
|                  | AR        | Simonet et al., "Osteoprotegerin: A Novel Secreted Protein Involved in the Regulation of Bone Density", <i>Cell</i> , 89:309-319, 1997.   |

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| EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. |                 |

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| Substitute Form PTO-1449<br>(Modified)<br><br><b>Information Disclosure Statement<br/>by Applicant</b><br>(Use several sheets if necessary)<br><br>(37 CFR §1.98(b)) | U.S. Department of Commerce<br>Patent and Trademark Office | Attorney's Docket No.<br><b>07917-120001</b> | Application No.<br><b>09/933,915</b> |
|  | Applicant<br><b>Paul R. Odgren, et al.</b>                 |  |                                      |
|  | Filing Date<br><b>August 20, 2001</b>                      | Group Art Unit<br><b>1645</b>                |                                      |

## U.S. Patent Documents

| Examiner Initial | Desig. ID | Patent Number   | Issue Date | Patentee | Class | Subclass | Filing Date If Appropriate |
|------------------|-----------|---|------------|----------|-------|----------|----------------------------|
|                  | AS        | Wong <i>et al.</i> , "TRANCE Is a Novel Ligand of the Tumor Necrosis Factor Receptor Family That Activates c-Jun N-terminal Kinase in T Cells", <i>J. Biol. Chem.</i> , <u>272</u> :25190-25194, 1997.                            |            |          |       |          |                            |
|                  | AT        | Wong <i>et al.</i> , "TRANCE, a TNF Family Member, Activates Akt.PKB through a Signaling Complex Involving TRAF6 and c-Src", <i>Mol. Cell</i> , 4:1041-1049, 1999.  |            |          |       |          |                            |
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|                  | AV        | Yasuda <i>et al.</i> , "Osteoclast differentiation factor is a ligand for osteoprotegerin/osteoclastogenesis-inhibitory factor and is identical to TRANCE/RANKL", <i>Proc. Natl. Acad. Sci. USA</i> , <u>95</u> :3597-3602, 1998. |            |          |       |          |                            |
|                  | AW        | GenBankTM Accession No. NM_003701, "PRI date" July 17, 2001   |            |          |       |          |                            |
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|                  | AZ        | GenBankTM Accession No. XM_006284, "PRI date" October 16, 2001  |            |          |       |          |                            |
|                  | BA        | GenBankTM Accession No. AF018253, "PRI date" November 22, 1997  |            |          |       |          |                            |
|                  | BB        | GenBankTM Accession No. AF019047, "PRI date" November 22, 1997  |            |          |       |          |                            |
|                  | BC        |   |            |          |       |          |                            |
|                  | BD        |   |            |          |       |          |                            |
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|                  | BI        |   |            |          |       |          |                            |
|                  | BJ        |   |            |          |       |          |                            |
|                  | BK        |   |            |          |       |          |                            |
|                  | BL        |   |            |          |       |          |                            |
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